



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/458,123

12/08/1999

BLAINE R. SPADY

M-7677-US

8470

34036

7590

02/11/2004

SILICON VALLEY PATENT GROUP LLP  
2350 MISSION COLLEGE BOULEVARD  
SUITE 360  
SANTA CLARA, CA 95054

EXAMINER

NATIVIDAD, PHILIP SANA

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/458,123

Applicant(s)

SPADY ET AL.

Examiner

Phil Natividad

Art Unit

2877

Am

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) 15-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-24 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 3-6 is/are objected to.
- 8) ☒ Claim(s) 15-20 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's cancellation of non-elected claims 10-14 acknowledged.

Claims 1-9 and 15-24 are pending.

#### ***Election/Restrictions***

1. Newly submitted claims 15-20 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The original invention in claims 1-9, 21-24 and the new invention in claims 15-20 are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claims 1-9, 21-24 do not require the particulars of "holding the wafer in a stationary position"/"without moving the wafer" as recited in claim 15. The subcombination has separate utility such as for inspections (e.g. mapping, resistivity) other than film thickness.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 15-20 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

Art Unit: 2877

application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Double Patenting***

3. The terminal disclaimer filed on 6/10/03 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,320,609 has been reviewed and is accepted. The terminal disclaimer has been recorded.
4. Claims 3-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 21-24 are allowed. The following is a statement of reasons for the indication of allowable subject matter: As to claims 3-6 and 21, the prior art of record, taken alone or in combination, fails to disclose or render obvious imaging and rotating the images depending on wafer orientation, in combination with all the rest of the limitations of the claims.

### ***Claim Rejections - 35 USC § 102 & § 103***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2877

7. Examiner maintains same 102 rejection: Claims 1, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheng (5,546,179). Cheng '179 discloses (Fig. 2) placing wafer at a fixed chuck (64), aligning/following edge (66), and moving/inspecting plural areas (70)(71), incl. film thickness.

8. Examiner maintains same 103 rejection: Claims 1-2 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (6,164,894). Cheng '894 teaches positioning (and then testing) a wafer in a fixed station (16) (col. 1 line 55–col. 2 line 25), moving/mapping the edge with an optical system, and also inspecting/testing plural areas. Cheng does not expressly disclose viewing through a window; however, sealed/clean environments are notoriously well known for wafer processing, of which Official Notice is taken, and it would have been obvious to one of ordinary skill in the art that optical contactless viewing may be done from outside a window, for motivation of maintaining such a sealed/clean environment. As to claims 7, note col 6 lines 64-66. As to claim 8, note that image recognition is well known in the art, of which Official Notice is taken, for motivation of more accurate aligning. As to claim 9, note col. 6 line 14.

### ***Response to Arguments***

9. Applicant's arguments filed 6/10/03 have been fully considered but they are not persuasive. As to "positioning a wafer at a fixed station", applicant is arguing against the references teaching moving the wafer. However, claim 1 is broadly recited "fixed station" reads on Cheng ('179) col. 7 lines 64-65 entire chuck assembly (12); also Cheng ('894) Fig. 6 (214) platform (82) chuck assembly (16). Note also Cheng '179 col. 6 lines 61-67 and Cheng '894 col. 9 lines 20-22.


***Conclusion***


10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner can be directed to Phil Natividad whose telephone number is 703-306-5944. The examiner can normally be reached on Tuesday through Friday and alternating Mondays; and supervising patent examiner Frank G. Font can be reached at 703-308-4881.

Tech Center 2800 Customer Service is at 703-306-3329. Any inquiry of a general nature or relating to the status of this application or proceeding can also be directed to the receptionist whose telephone number is 703-308-0956.

  
Phil Natividad  
Patent Examiner  
psn  
January 30, 2004

  
**FRANK G. FONT**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**